APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Michael J. O'Phelan et al. Examiner: H. J. Tsai

Serial No.: 10/728,655 Group Art Unit: 2812

Filed: December 05, 2003 Docket: 279.168US2

For: FLAT CAPACITOR HAVING STAKED FOILS AND EDGE-CONNECTED CONNECTION MEMBERS

APPEAL BRIEF UNDER 37 CFR § 41.37

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Appeal Brief is presented in support of the Notice of Appeal to the Board of Patent Appeals and Interferences, filed on May 31, 2007, from the Final Rejection of claims 36-38 and 52-55 of the above-identified application, as set forth in the Final Office Action mailed on February 13, 2007.

The Commissioner of Patents and Trademarks is hereby authorized to charge Deposit Account No. 19-0743 in the amount of $500.00 which represents the requisite fee set forth in 37 C.F.R. § 41.20(b)(2). The Appellants respectfully request consideration and reversal of the Examiner's rejections of pending claims.

1. REAL PARTY IN INTEREST

The real party in interest of the above-captioned patent application is the assignee, CARDIAC PACEMAKERS, INC..

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant that will have a bearing on the Board's decision in the present appeal.

3. STATUS OF THE CLAIMS

The present application was filed on December 5, 2003 with claims 1-84. In a preliminary amendment filed December 5, 2003, claims 13-35, 47-48, 56-69, and 75-84 were cancelled. During prosecution of the application, claims 1-12, 39-46, 49-51, and 70-74 were cancelled. Claims 36-38 and 52-55 stand twice rejected, remain pending, and are the subject of the present Appeal.

4. STATUS OF AMENDMENTS

Subsequent to the Final Office Action dated January 31, 2007, claims 1-8 and 39-46 were cancelled. No other amendments have been made subsequent to the Final Office Action. Claims 36-38 and 52-55 remain pending.

5. SUMMARY OF CLAIMED SUBJECT MATTER

Aspects of the present inventive subject matter include, but are not limited to, a flat capacitor having staked foils and edge-connected connection members.

INDEPENDENT CLAIM 36

Referring to FIG. 14, claim 36 recites: A method of coupling a plurality of anode connection members of a capacitor, the method comprising: attaching an L-shaped anode connection member (1001a) to two or more of a plurality of anodes (203a, 203b, 203c) such that a first section (1003) of the L-shaped anode connection member is attached to a major surface (1021) of the two or more of a plurality of anodes and a second section (1004) of the L-shaped anode connection member overhangs an edge face of the two or more of a plurality of anodes (203b, 203c); (See page 21, line18 – page 22, line 5); positioning each of the anode connection members (1001a, 1001b) so that each anode connection member (1001a) is flush with each other anode connection member (1001b) or connection members adjacent to each anode connection member; (See page 22, lines 5-13) and edge-connecting (801a, 801b, 801c) each anode connection member to the anode connection member or connection members adjacent to each anode connection member directly along an exposed end face (1008a, 1008b) of each of the connection members. (See page 22, lines 10-12, and page 19, lines 1-22).

INDEPENDENT CLAIM 52

Referring to Figs. 9A and 14, claim 52 recites: A method of assembling a capacitor, the method comprising: assembling two or more anode stacks by a method comprising: staking an L-shaped connection member (1001a, 204) to only a first anode foil (203b) by a first stake weld (301b) using a staking tool to force the first anode foil into the tab; (See page 21, 15-17 and page 14, lines 23-24); and staking the first anode foil (203b) to a second anode foil (203a) by a second stake weld (See page 14, line 23); stacking the two or more anode stacks into a capacitor stack so that each L-shaped anode connection member (1001a) is flush with each other L-shaped anode connection member (1001a) or connection members adjacent to each L-shaped anode connection member; (See page 22, lines 5-13) and welding each anode stack connection member to each

other adjacent anode stack connection member by edge-connecting (801a, 801b, 801c) each anode connection member to the anode connection member or connection members adjacent to each anode connection member directly along an exposed end face (1008a, 1008b) of each of the L-shaped connection members. (See page 22, lines 10-12, and page 19, lines 1-22).

This summary does not provide an exhaustive or exclusive view of the present subject matter, and Appellant refers to each of the appended claims and its legal equivalents for a complete statement of the invention.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 36-38 were properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Breyen et al. (U.S. Patent No. 6,795,729) in view of Greenwood, Jr. et al. (U.S. Patent No. 5,949,638).

Whether claims 52-55 were properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Breyen et al. (U.S. Patent No. 6,795,729) in view of Greenwood, Jr. et al. (U.S. Patent No. 5,949,638).

7. ARGUMENT

A) The Applicable Law under 35 U.S.C. §103

The Examiner has the burden under 35 U.S.C. § 103 to establish a prima facie case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). To do that the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would lead an individual to combine the relevant teaching of the references. *Id.*

The Fine court stated that:

> Obviousness is tested by "what the combined teaching of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 878 (CCPA 1981)). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys.*, 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined only if there is some suggestion or incentive to do so." *Id.*

The M.P.E.P. adopts this line of reasoning, stating that

> In order for the Examiner to establish a prima facie case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure. M.P.E.P. § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

B) Discussion of the rejection of claims 36-38 under 35 U.S.C. § 103(a) as being unpatentable over Breyen et al. (U.S. Patent No. 6,795,729) in view of Greenwood, Jr. et al. (U.S. Patent No. 5,949,638).

Claims 36-38 were rejected under 35 USC § 103(a) as being obvious over Breyen et al. (U.S. Patent No. 6,795,729) in view of Greenwood, Jr. et al. (U.S. Patent No. 5,949,638).

This rejection is respectfully traversed, Appellant respectfully submits that the Final Office Action has made an improper *prima facie* showing of obvious at least because, even if combined, the combination does not include "attaching an L-shaped anode connection member to two or more of a plurality of anodes such that a first section of the L-shaped anode connection member is attached to a major surface of the two or more of a plurality of anodes and a second section of the L-shaped anode connection member overhangs an edge face of the two or more of a plurality of anodes;" and "edge-connecting each anode connection member to the anode connection member or connection members adjacent to each anode connection member directly along an exposed end face of each of the connection members," as recited in claim 36.

The Examiner refers to Col. 20, lines 15-67 of Breyen for the subject matter of "edge connecting." On page 10 of the Final Office Action, the Examiner states that "Breyen clearly teaches at figs. 9-10 and col. 20, lines 55-65: In one method, it is preferred that the crimped anode and cathode feedthrough be laser or ultrasonically welded along a top portion of the trimmed edge of the distal ends to anode and cathode tabs 232 and 233." However, Appellant points out that this subject matter does not read on the claim. Breyen discusses crimping the anode tabs, (line 38), and then laser or ultrasonically welding an anode feedthrough along the top portion of the trimmed edges of the distal ends of the tabs. (Lines 55-60). Nowhere does this imply that Breyen discusses edge-connecting the anode connection members to each other directly along an exposed end face of each of the connection members, as claimed. The Greenwood reference also does not discuss such subject matter.

Moreover, neither reference includes an L-shaped connection member having "a second section of the L-shaped anode connection member overhangs an edge face of the two or more of a plurality of anodes." Greenwood discusses an angled terminal strip 21 (See FIG. 1), but this does not read on the claimed L-shaped connection member. The Examiner also states that

Breyen teaches that the shape of anode layers, cathode layers and separator layers are primarily a matter of design choice. (Page 5 of Final Office Action). However, at Col. 9, lines 47-53 of Breyen, Breyen is discussing the perimeter shape of the layers and is not discussing a shape that would be required to read on the claimed: L-shaped connection member having "a second section of the L-shaped anode connection member overhangs an edge face of the two or more of a plurality of anodes."

Claims 37-38 include each limitation of their parent claim and are therefore also not obvious in view of the cited references. Reconsideration and allowance is respectfully requested.

C) Discussion of the rejection of claims 52-55 under 35 U.S.C. § 103(a) as being unpatentable over Breyen et al. (U.S. Patent No. 6,795,729) in view of Greenwood, Jr. et al. (U.S. Patent No. 5,949,638).

Claims 52-55 were rejected under 35 USC § 103(a) as being obvious over Breyen et al. (U.S. Patent No. 6,795,729) in view of Greenwood, Jr. et al. (U.S. Patent No. 5,949,638).

Appellant traverses the obviousness rejection of claim 52. Appellant believes claim 52 is not obvious since, even if combined, the combination does not include each limitation recited in the claim. For instance Appellant cannot find in the cited reference: "edge-connecting each anode connection member to the anode connection member or connection members adjacent to each anode connection member directly along an exposed end face of each of the L-shaped connection members," as recited in claim 52.

As discussed, the Examiner refers to Col. 20, lines 15-67 of Breyen for such subject matter. However, Breyen discusses crimping (line 38) the anode tabs, and then laser or ultrasonically welding an anode feedthrough to a top portion of the tabs (lines 55-60). Breyen does not discuss edge-connecting the anode connection members along an exposed end face, as claimed. The Greenwood reference also does not discuss such subject matter.

Claims 53-55 include each limitation of their parent claim and are therefore also not obvious in view of the cited references. Reconsideration and allowance is respectfully requested.

8. SUMMARY

For the reasons argued above, claims 36-38 and 52-55 were not properly rejected under § 103(a). It is respectfully submitted that the art cited does not render the claims obvious and that the claims are patentable over the cited art. Reversal of the rejection and allowance of the pending claims is respectfully requested.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 31 day of July 2007.

Name

Signature

CLAIMS APPENDIX

36. A method of coupling a plurality of anode connection members of a capacitor, the method comprising:

attaching an L-shaped anode connection member to two or more of a plurality of anodes such that a first section of the L-shaped anode connection member is attached to a major surface of the two or more of a plurality of anodes and a second section of the L-shaped anode connection member overhangs an edge face of the two or more of a plurality of anodes;

positioning each of the anode connection members so that each anode connection member is flush with each other anode connection member or connection members adjacent to each anode connection member; and

edge-connecting each anode connection member to the anode connection member or connection members adjacent to each anode connection member directly along an exposed end face of each of the connection members.

37. The method of claim 36, wherein edge-connecting comprises laser welding along a seam between each of the anode connection members.

38. The method of claim 36, wherein each of the plurality of connection members having a cut-out adapted to matchably fit within a notch on an anode.

52. A method of assembling a capacitor, the method comprising:

assembling two or more anode stacks by a method comprising:

staking an L-shaped connection member to only a first anode foil by a first stake weld using a staking tool to force the first anode foil into the tab; and

staking the first anode foil to a second anode foil by a second stake weld;

stacking the two or more anode stacks into a capacitor stack so that each L-shaped anode connection member is flush with each other L-shaped anode connection member or connection members adjacent to each L-shaped anode connection member; and

welding each anode stack connection member to each other adjacent anode stack connection member by edge-connecting each anode connection member to the anode connection member or connection members adjacent to each anode connection member directly along an exposed end face of each of the L-shaped connection members.

53. The method of claim 52, wherein staking the first anode foil to the second anode foil comprises forcing the first anode foil together with the second anode foil with a staking pin having a tip diameter less than approximately 0.060" (1.524 mm).

54. The method of claim 52, wherein the first anode foil and the second anode foil each comprise an anode foil having a porous structure and a formation voltage of greater than approximately 441 volts.

55. The method of claim 52, wherein welding each anode stack connection member to each other adjacent anode stack connection member comprises edge-welding the connection members together.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.